

REMARKS

Claim 71 has been cancelled and claim 72 made independent. In addition, claim 93 has been amended to correct its dependency, as noted by the examiner. Since these changes correct an obvious informality, and because no new issues are created by these changes, applicants believe entry of this amendment is proper at this time.

The rejection of the claims under 35 U.S.C. §103 as obvious over newly-cited U.S. 4,454,248 to Pollock et al., whether considered alone or in combination with the other cited references, is respectfully traversed. As indicated in the Amendment of December 21, 2009, this invention is based on the discovery that the temperature at which sulfonyl hydrazide blowing agents are traditionally activated in the manufacture of epoxy resin foams (*i.e.*, 125° C to 160° C) can be drastically reduced to 1° C to 60° C by selecting polyamine and/or polyamide curing agents for the epoxy resin. According to the examiner, this result is not unexpected because it is expressly shown in the newly-cited Pollock et al. reference. *See*, Paragraph 36 on page 13 of the Office Action of October 29, 2010. While applicants agree that foaming at very low temperatures (*e.g.*, room temperature) is fairly shown in Pollock et al. with respect to polyurethane foams, it is not shown or reasonably suggested with respect to the epoxy resin foams also shown in this reference.

So, for example, in every working example in Pollock et al. in which an epoxy resin is made, namely Examples I, VIII and XII, foaming is done by heating to 200° F (93° C) and the blowing agents used are completely different from the sulfonyl hydrazide chemical blowing agents of this invention. Similarly, in every working example in Pollock et al. in which foaming occurs at room temperature, Examples V, VI, VII, IX, X, a polyurethane foam is made with water as the blowing agent. Accordingly, the working examples of this reference clearly do not suggest that epoxy resin foams made with sulfonyl hydrazide chemical blowing agents can be made to foam at temperatures far below the traditional decomposition temperatures of these blowing agents if, but only if, certain polyamine and/or polyamide curing agents are used for curing the epoxy resin forming the foam.

Regarding the general disclosure of this reference, the most pertinent disclosure can be found at col. 12, lines 52-55, where patentees state that "[I]n some instances it is necessary to

force foam by heating the [epoxy] resin containing blowing agent.” While this may imply that epoxy resins can be made to foam without heating, there is no other disclosure in this reference indicating how this can be done. For example, there is no disclosure in this reference anywhere indicating (1) what particular epoxy resins, (2) what particular blowing agents, (3) what particular curing agents, (4) what particular operating conditions, and/or (5) what other particular chemicals or approaches must be selected to cause an epoxy resin to foam at temperatures far below the normal decomposition temperature of the blowing agents used. That being the case, there is no fair suggestion in this reference of how epoxy resin foams could be formed at room temperature and below, as the examiner is assuming.

It is a fundamental principle of patent law that, in order to constitute invalidating prior art, a reference must be enabling, *i.e.*, it must provide enough disclosure to enable one of ordinary skill in the art to make the invention it describes. *In re LeGrice*, 301 F.2d 929, 133 USPQ 365 (CCPA 1962). In this case, any suggestion in Pollock et al. that epoxy resins can be made to foam at temperatures far below the normal decomposition temperature of the blowing agent used to form the foam is nothing more than wishful thinking. This type of disclosure does not justify a rejection over the prior art.

Fairly considered, Pollock et al. describes two distinctly different polymer foams, those made from epoxy resins and those made from polyurethane resins. The fact that Pollock’s polyurethanes can be made to foam at room temperature in no way suggests that Pollock’s epoxy’s can be made to foam at room temperatures, at least in circumstances such as here where (1) this result is wholly unexpected in view of all the other relevant prior art and (2) Pollock et al. is devoid of any teaching how such a result could be accomplished as a practical matter.

If any fee is due with this amendment, please charge our deposit account no. 03-0172.

Respectfully submitted,

/JEMiller/

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